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BASUTOLAND

Annual Report of the Department of Agriculture

FOR THE YEAR ENDED 30th SEPTEMBER

1945

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SECTION I.

REVIEW.

1. ORGANIZATION:

The reorganisation of the department, as described in last year's report, has enabled the staff, with six less executive officers than in 1940, to carry an increased burden of work successfully. The reorganization entailed the regrading of the African staff, and necessitated a change in the titles of the posts appropriate to the wider duties performed.

A considerable part of the time of the headquarters' staff has, unavoidably, been taken up in administering war time controls; by far the most exacting of these being that of cereals.

2. STAFF:

The post of Agricultural and Livestock Officer and Experimentalist has not been filled, nor has it been possible to make appointments to the new posts of Veterinary Officer, Assistant Conservator of Forests and Agricultural and Education Officer.

One of the Senior Agricultural and Livestock Officers (Mr. Peachey) was transferred to Swaziland, on promotion. Mr. Lindsay was appointed as an additional Agricultural and Livestock Officer, pending an appointment to the Senior post vacated by Mr. Peachey.

ADMINISTRATION

The executive staff now consists of:—

European:

1 Director of Livestock and Agricultural Services,
1 Principal Veterinary Officer,
1 Principal Agricultural Officer,
1 Anti-Erosion Officer,
1 Senior Agricultural and Livestock Officer,
10 Agricultural and Livestock Officers,
5 Anti-Erosion Foremen,
1 Mechanic.

AFRICAN:

2 Veterinary Assistants,
6 Senior Demonstrators,
40 Demonstrators,
64 Assistant Demonstrators.

In addition, a large number of Temporary Assistant Demonstrators, Tree Supervisors and Wool Classers were employed.

3. WEATHER CONDITIONS:

During the growing season good rains were experienced in the northern parts of the lowlands and over the greater part of the mountain areas. In the southern lowlands, however, only spasmodic, light, thunder showers fell up to mid-summer, which rendered full planting impossible. The drought continued until mid January, 1945, when it was too late for planting to be carried out to ensure a crop before the advent of the frosts in April. The winter months were exceptionally cold and dry; frost being registered every night during the months April to August. Except for light showers in May, no rain fell up to the end of September, and the calendar year of 1945 was the driest ever recorded; the total rainfall in Maseru being only 16.87 inches as compared with the lowest previously recorded, namely 20.16 inches in 1922.

4. POLICY:

The work of the Department has been concentrated on long term schemes for:—

(a) raising the fertility of the arable land;
(b) combating soil erosion;
(c) the introduction of deferred grazing;
(d) village tree planting;
(e) livestock improvement.

The system of cultivation developed by the Basuto is that commonly practised in all new countries and especially in Africa. As soil fertility and crop returns have decreased, more and more virgin land has been broken for planting to make up the shortage of food and to provide for the monetary needs of the people. The position has been further aggravated by a steady rise in population. The stage has now been reached where all the land suitable for crop production is under cultivation, and much of it is exhausted and unable to support the people adequately.

The only solution to the problem is the rapid introduction of sound balanced farming, whereby the fertility of the arable land can be increased and crop returns improved. This will entail, firstly, a reduction in the area under cultivation, especially in the lowlands where

the proportion of arable to grazing land is much too high; and secondly, the introduction of proper methods of management, so that greatly enhanced returns can be obtained from the reduced acreage.

The manuring campaign, inaugurated last year on a large scale, has shown that by this means alone yields can be increased at least threefold. It should, therefore, be possible by manuring, rotation of crops and the introduction of grass leys in the rotation, to reduce the arable acreage by one-third, with far-reaching beneficial results to the people and the country.

In order to put these broad principles into effect a scheme has been drawn up, which is known as the "Agricultural Improvement Area Scheme", and is at present under consideration by the National Council.

Excellent progress has been made with anti-erosion work and tree planting, and these subjects will be dealt with, in detail, later in the Report.

Since last year many Chiefs have been persuaded to introduce into their wards simple systems of deferred grazing, and, where instructions have been faithfully followed, a remarkable improvement in the grass cover is already evident.

SECTION II.

AGRICULTURE.

1. MAIZE AND KAFFIR CORN:

(a) Maize:

In the northern lowlands and in the foothill areas the maize crop was good, but in the south, where severe drought conditions were experienced, the crop was very poor, and on the south-western border area a complete failure.

In the north considerable quantities of maize, suitable for seed purposes, were purchased by the Department for distribution in the southern districts. Many mountain natives were able to make up their food shortages by purchasing maize in the north of Basutoland.

(b) Kaffir Corn:

A fair crop of kaffir corn was grown in the northern districts, but in the south only 20 per cent. of average was harvested.

2. WHEAT:

The winter wheat crop in the lowlands was almost a complete failure, and the mountain wheat was only fair as it suffered from the abnormal drought during December and the first part of January. The crop reaped was considerably less than that of the previous season.

3. BEANS:

The bean crop was fair. A larger acreage than usual was planted; use having been made of the wheat lands where many crop failures occurred. Much of the bean crop, however, did not ripen before the advent of the frost in April.

4. PEAS:

The winter sown crop in the lowlands was almost an entire failure, due to drought throughout the winter and spring.

In the mountain districts a larger acreage than that of last year was sown to peas, but the crop suffered from an early summer drought, and later plantings were spoilt by frost.

The price ruling for peas and beans has been abnormally high; up to 80/- being obtained for a bag of 200lbs.

5. BARLEY

The barley crop in the mountain districts was the worst harvested for some years; the hot dry weather experienced during mid-summer adversely affecting growth.

6. APPROXIMATE AGRICULTURAL PRODUCTION FOR 1945 AND PRECEDING YEARS.

Crop.	1939.	1940.	1941.	1942.	1943.	1944.	1945.
Maize ...	758,835	691,542	1,005,268	527,634	720,000	700,000	400,000
Sorghum ...	164,129	139,965	274,156	164,493	324,000	300,000	150,000
Wheat ...	364,802	398,861	394,688	182,187	360,000	416,000	325,000
Peas, Beans and other Crops ...	156,562	133,353	73,593	36,796	40,000	56,000	40,000

Remarks: These crop returns are given in bags of 200lbs.

7. METHODS ADOPTED TO INCREASE FOOD PRODUCTION:

The chief methods adopted were:—

(a) The appointment of two Assistant Demonstrators to work under each Agricultural Demonstrator.

(b) The provision of agricultural implements for loan to the people.

(c) The Paramount Chief's Orders for better methods of cultivation.

(d) Continued propaganda by all members of the Department to encourage better ploughing, cultivation of crops and the production of vegetables.

(e) Manuring the lands in rotation, using kraal manure and village refuse.

(f) The fertilizing of worn-out land with phosphates, as a temporary expedient during the war period.

(g) The rotation of crops and the ploughing in of plant residues.

(h) The issue at cost price of seed of wheat, maize, peas, beans and vegetables.

The methods adopted need little elaboration. The appointment of Assistant Demonstrators has been of great assistance and has enabled Agricultural Officers to provide for better supervision of both the crop and livestock work.

Continued propaganda has been responsible for some improvement in methods of cultivation, and more land than ever before was winter ploughed.

The manuring of the lands and the benefits derived therefrom will be discussed later.

Particulars regarding the fertilizing of worn-out lands with phosphates, appear under Paragraph 11.

8. MANURING THE LANDS WITH KRAAL MANURE AND ASH FROM VILLAGE REFUSE HEAPS.

The Government has purchased 96 Scotch carts. These are issued on loan to the people in the lowlands. Demonstrators are in charge of these carts and see that correct dressings are applied to the land.

Adequate applications of organic manure are of the utmost importance in Basutoland, where practically all the land, except that situated in alluvial valleys, is exhausted and no longer able to produce economic crop returns.

In the Leribe district the maize lands which had been manured averaged 5.7 bags per acre and those in the Teyateyaneng and Peka districts 7.8, while the average production from neighbouring unmanured lands was only 1.5 bags per acre. The highest yield of maize produced in the Leribe district, where the land had received a dressing of 4 tons, was 10 bags per acre, and in the Teyateyaneng and Peka areas, 13 bags per acre. One maize land in the Leribe district, which was manured at the rate of 11 tons per acre, yielded 16 bags per acre.

Kaffir corn planted on manured ground in the Teyateyaneng and Peka areas yielded an average of 6.7 bags per acre; the average production from native worked lands being approximately 1.8 bags per acre.

It is pleasing to note, especially in the northern parts of the Territory where the results of manuring have been outstanding, that the people are becoming very keen to obtain the loan of Government Scotch carts to convey manure to their lands. Some people, unable to obtain these carts, are transporting manure on pack animals.

Both kraal manure and ash from the village refuse heaps are being used, with excellent results. Under supervision, 88,099 bags of kraal manure and ash have been transported and spread on the land. Kraal manure is applied at the rate of 100 bags per acre, weighing approximately 80lbs. per bag, which means an application of approximately 4 tons. Well rotted village refuse is applied at the rate of 30 bags to the acre; a bag averaging 200lbs. This means an application af approximately 3 tons.

9. REPORT ON GENERAL DEMONSTRATION WORK CARRIED OUT IN THE TERRITORY DURING 1944-45.

The Agricultural Demonstrators were mainly employed on increasing food production, manuring, village tree planting and the setting out of buffer grass strips; the latter chiefly in the mountain and hillside country.

Although less actual demonstration work than usual was undertaken, the results obtained for the season, which was a very difficult one, were outstanding.

Competitions were again held for the best managed autumn and spring sown crops. 753 fields were entered in these competitions, and £46-0-0 was expended in prize money. Most of the winning lands had been manured.

10. LECTURES AND DEMONSTRATIONS.

During the year every effort was made, when the Agricultural Officers and Demonstrators were not employed on the more practical side of their work, to interest the natives in the great necessity for increased food production, village tree planting and the grass stripping of sloping mountain lands to prevent erosion.

Meetings of the people were called throughout the Territory, when 863 Lectures and Demonstrations were given. 33,713 Natives attended these lectures.

11. REPORT ON THE GOVERNMENT SCHEME FOR THE SUPPLY OF SUPERPHOSPHATE AND OTHER PHOSPHATIC FERTILIZERS TO NATIVE FARMERS AT COST PRICE.

The sale of fertilizer is still controlled by the Union Government. There was, however, sufficient in the Territory this year to make the purchase of further supplies unnecessary. Owing to the drought comparatively small quantities of fertilizers were sold in the southern districts, but in the north the demand was large.

A total of 180 bags of Superphosphate and 939 bags of Kalfos were purchased by the Native Farmers, during the Season 1944-45, from the stocks held by the Government.

12. SEED ISSUES.

No results were obtained from the issues of seed wheat in the Lowlands, as the crop was a failure due to drought during the autumn, winter and spring.

Fair crops were obtained from the issues of Canadian wheats in the mountain districts. The varieties Marquis and Ceres gave the highest yields.

13. VEGETABLE GARDENING AND FRUIT CULTURE.

The policy of the Department is to encourage every householder in Basutoland to have a small, well cultivated vegetable garden. By this means it is hoped to improve the general health of the nation, make use of the worn-out land near the huts and teach the elements of good agriculture from intensive management of small gardens.

The season under review, except in the northern districts, was a most difficult one for the production of vegetables. The spring rains were late and were followed by an early summer drought. Insect pests, such at cut-worms and aphids were responsible for great damage. Fair crops of vegetables were obtained in the autumn.

The total number of vegetable gardens which have been worked under the direct advice of Agricultural Officers and Demonstrators, is 9,415, an increase of 1,309 over last season. This figure does not represent the true number of gardens or fruit enclosures in the Territory, as many natives have made their own gardens, profiting by the ocular demonstration afforded by those managed by the Department.

During the period under review a record was taken of the holdings of 50 families in each district. An analysis of these figures shows that from 491 returns 33% of the people have gardens and 11% have some kind of small fruit tree enclosure. As there are approximately 130,000 family units in Basutoland, this represents a total of 42,900 gardens and 14,300 fruit tree enclosures in the Territory.

The usual issues of vegetable seeds and seed potatoes were made to people who followed the Department's advice as regards the management of their gardens. A further issue of vegetable seed was made in the Lowlands during the summer to encourage the Basuto to produce vegetables in order to make up for the general food shortage in many parts of the Territory.

Two hundred and twenty-two Peach trees and 45 vines were presented to native gardeners.

Owing to the drought the usual competitions for the best managed gardens were only held where warranted; 1,956 gardens were entered in the competitions, and £66 was expended in prize money.

14. MARKETS FOR NATIVE PRODUCE.

These markets are well patronised and serve a very useful purpose as centres where the people can dispose of surplus vegetables and other produce.

15. AGRICULTURAL ASSOCIATIONS.

The total number of Agricultural Associations in the Territory is 197, consisting of:—

40 Men's Associations.
89 Women's Associations.
68 Mixed Associations.

These Associations have a membership of 6,444, as against 6,306 last season.

The Associations, especially the Women's and Mixed Associations, serve a very useful purpose in furthering Departmental schemes for increased food production and the introduction of better methods of cultivation. They also provide a sound foundation on which co-operative marketing can be built.

16. AGRICULTURAL SHOWS.

Owing to the bad agricultural season only two Shows were held, namely at Mokhotlong and Teyateyaneng. Both these Shows were organized by the Agricultural Associations of the districts.

The Stock Classes were disappointing, but those for Produce, Vegetables and Women's Work were good. The Produce Sections at Teyateyaneng were outstanding.

17. RODENT DESTRUCTION.

The position as regards rodents has much improved since last season, and less poisoned wheat has been used than during the two previous years. The Agricultural Department continues to co-operate with the Medical Department with regard to the destruction of these vermin.

18. INCIDENCE OF INSECT PESTS.

No swarms of either the Brown or Red Winged Locust invaded the Territory.

The Elegant Grasshopper was responsible for far less damage to gardens than in previous years.

The Army-worm destroyed the grazing in certain isolated areas, but did practically no damage to standing crops.

Maize Stalk Borer appeared in the northern districts, and, owing to the dearth of suitable insecticides, whole fields of maize had to be topped.

The Cut-worm was prevalent during the early part of the season and was responsible for considerable damage to maize and vegetables.

Aphis was particularly troublesome and was responsible for much damage to fruit trees, vegetable crops and kaffir corn.

Owing to a succession of poor seasons the storing of grain has been on a very small scale, and weevils have had difficulty in finding food. Infestation has, therefore, been light.

19. VILLAGE AND RESERVE TREE PLANTING.

The Village Tree Planting Campaign was started in November, 1942. Chiefs and Headmen have been asked to beacon off suitable sites for tree planting so that ultimately each family unit will have one acre of trees; the planting of which will be spread over a period of seven years. Remarkable progress has been made and by the end of September, 1945, 18,872,653 trees had been planted. These consisted chiefly of White Poplars, Willows, Robinia and Silver Wattles. Although difficulties and very heavy losses were experienced due to fires, destruction by stock and severe droughts, these trees are beginning to show up well throughout the Territory.

With a view to providing material for basket making, 21,294 Osier Willow cuttings were planted, in moist situations, under departmental supervision.

379,826 trees of different varieties were planted on Government Reserves during the period under review.

20. EXPERIMENTAL WORK:

(a) Maseru Station.

(1) Soya Bean Selections:

Of the forty-four non-shattering selections made last year, eleven were retained. These took 136 days to mature and gave an average yield of 960 lbs. per acre.

(2) Maize Variety Trial:

Variety	Type	Planted	Harvested	Days to mature	Yield per acre
Muratha	White flint	26/10/44	30/5/45	217	162 lbs.
Swaziland A.Bk	do.	31/11/44	1/4/45	148	700 lbs.

(3) Kaffir Corn Variety Trials:

Variety	Type	Planted	Harvested	Days to mature	Yield per acre
Strain 127	Red Dwarf	3/11/44	1/4/45	148	500 lbs.
Strain 74T.	Red Semi Dwarf	do.	do.	do.	800 lbs.

(4) Grass Trials:

With the object of discovering suitable grasses for short term leys, forty-seven varieties, exotic and indigenous, have been sown for observation purposes. Those showing the most promise are: Panicum coloratum, Rhodes grass, Phalaris tuberosa, Eragrostie chloromelas, Eragrostis curvula.

(5) Grass Ley Experiment:

Object:

To discover if short term grasses and lucerne can be established on exhausted soils, and, if so, the effect on soil fertility of a three year ley.

The following grasses were sown alone and also mixed with lucerne:

Paspalum dilatatum,
New Zealand Tall Fescue,
Rhodes grass.

These were all sown in January, and by September, Rhodes grass had made the best growth and had practically covered the ground. The other two varieties died out owing to drought.

(6) MANURING AND ROTATION OF CROPS:

Experimental work is under way to discover the optimum dressings of manure per acre, and the effect of rotation of crops on soil fertility.

(b) Makhaleng Station:

(1) Wheat Variety Trial:

Eight varieties, including two of the Reward-Talberg crosses, were sown on 25th and 26th September, 1944.

Conclusion:

The best yield was obtained from Ceres, which matured in 128 days, followed by the variety Thatcher which matured in 120 days.

There was no rust infection owing to the dry season.

Variety	Date sown	Reaped	Days to mature	lbs. per acre	B.W.	Grade
RT 19/3	25/26 Sept	23rd Jan.	120	1240	64	B1.
Ceres	,,	31st ,,	128	1840	65	A1.
Marquis	,,	,, ,,	128	1520	63	A1.
Hope	,,	,, ,,	128	1560	62	A1.
Thatcher	,,	23rd ,,	120	1680	62	A1.
Renown	,,	,, ,,	120	1360	63	A1.
RT 7/3	,,	,, ,,	120	1520	62	B1.
Talberg	,,	19th Feb.	147	1400	60	B2.

(2) Potato Variety Trial:

Variety	Yield lbs. per acre.
1st from Imported Up-to-Date	14,940
Up-to-Date Transvaal seed	11,340
Arran Chief	12,660
Quthing Basuto	5,340
White Basuto	10,320
Kerr's Pink	6,060

Some "virus free" Up-to-Date seed was obtained from Riet River Settlement. This variety was planted on 17th November, 1944, and harvested on 17th May; yielding 17,000 lbs. per acre.

(3) Pyrethrum:

Young plants set out on the 31st January, 1945, made fair growth before the frosts occurred in April.

(c) Grazing Trials:

(1) Thaba Tsoeu:

Object:

To discover if Chrysocoma can be eradicated and grass brought back by a system of rotational grazing and light stocking. Rate of stocking: 1 large stock unit to 10 acres.

It is still too early to make any comment on this trial.

(2) Thaba Putso:

To discover the maximum stock carrying capacity of mountain Themeda Veld, consistent with the maintenance of the grass cover. The rates of stocking are: 1 large unit to 1 acre and 1 large unit to 4 acres.

The trial was commenced in January, 1945, and it is, as yet too early for any definite findings to be available.

SECTION III.

LIVESTOCK AND VETERINARY.

1. ECONOMIC ASPECT:

Despite droughty weather conditions slaughter stock maintained condition fairly well. Numerically, offerings were not quite as high as in other years. Nevertheless, the prices paid by Union livestock dealers attending the livestock sales, held under the auspices of the Government, constituted a record for cattle. The average price being £10 13s. 10¾d. as compared with the previous highest average price, viz., £9 19s. 6½d. in 1943/44. Offerings of slaughter sheep were small, the same applies to horses. The majority of the horses sold were condemned Government remounts. The demand for horses in the Territory reached its zenith when large drafts of Basuto soldiers returned from the war. For livestock sale returns vide Paragraph 6.

2. STATISTICAL REVIEW:

A census of livestock was taken during the year. For details see Paragraph 8.

Compared with 1944, cattle exports increased by 83 units while sheep exports increased by 348 units. There was an increase in the case of cattle imports of 3,218 units, while sheep imports increased by 199 units.

Vaccination of livestock was well maintained. For statistics see Paragraph 8.

3. ANIMAL HEALTH:

Having regard to the severity of the drought, which was the worst experienced since 1933, the health of all classes of livestock remained about normal. There was, however, considerable loss of calves, lambs and kids, due to undernourishment.

4. DISEASE CONTROL:

Anthrax: Three outbreaks were recorded, viz., two in the Leribe district and one in the sub-district of Butha Buthe. The deaths involved in these outbreaks totalled five head of cattle. Owing to prompt detection and early inoculation mortality was reduced to a minimum.

Equine Mange: This disease still constitutes a menace in certain areas. Control measures have, however, helped to prevent its spread.

Anaplasmosis: Owing to the drought, tick-life was less active than usual, consequently this disease has not been much in evidence.
Horse-sickness: No outbreaks of this disease were recorded. The disease virtually disappears in droughty seasons.
Blue Tongue: The same remarks apply as in the case of Horse-sickness.

Fowl Typhoid: Notifications of this disease were more numerous than heretofore. This is probably due to three factors, viz.: (a) the establishment of more semi-intensive plants; (b) better quality stock and (c) poultry are now highly prized, hence more notice is taken of their ailments.

Lumpy Skin Disease: No outbreaks recorded.

5. ANIMAL HUSBANDRY:

Small Stock:

The poundage of wool classed under official supervision showed a decrease of 319 pounds over the previous year. This decrease was due to the fact that in some districts the entire clip was subjected to simple classing by the owners themselves.

The following table summarises the wool classing position during the last three seasons:—

	1942-43	1943-44	1944-45
No of sheep shorn under official supervision	245,900	178,177	190,761
Poundage of wool	1,439,674	958,427	958,108
Average poundage per sheep	5.85	5.4	5
Percentage of combing wool	34.62	34.03	28.53
Percentage of short wool	16.62	20.12	23.06
Percentage of XM wool	13.93	10.76	7.73
Percentage of outsorts	34.83	35.09	40.68

CLASSED BY TRADERS:

Poundage of wool	197,132
Percentage of combing wool	27.99
Percentage of short wool	38.77
Percentage of XM wool	7.02
Percentage of outsorts	26.22

The total poundages of wool and mohair exported during the report year were 9,781,000 lbs. and 1,287,001 lbs. respectively.

Compared with the previous year this represents an increase of 1,029,893 lbs. in the case of wool and a decrease of 158,082 lbs. in the case of mohair. Generally speaking the prices realised for wool and mohair were maintained at satisfactory and remunerative levels.

The average prices realised for wool and mohair were:—

Government Classed		Simply Classed	Unclassed
	WOOL.		
C.1	11d. to 12d. per lb.	Longs 8d. to 9d. per lb.	Longs 8d. per lb.
C.2	10d. to 10½d. per lb.	Shorts 7½d. per lb.	Shorts 7d. per lb.
L.L.	10½d. to 11d. per lb.	X.M. 6d. per lb.	C. & C. 4d. per lb.
S.S.	8½d. per lb.	B.P. 5d. per lb.	
S.	7d. to 7½d. per lb.	Lox 3d. per lb.	
L.	7½d. per lb.		
X.M.	6d. per lb.	Mohair:	
C.B.P.	6d. to 6½d. per lb.	Longs ... ...9d. to 9½d. per lb.	
B.P.	5½d. to 6d. per lb.	Shorts ... ... 4d. per lb.	
B.K.S.	5½d. to 6d. per lb.	Medium ... ... 7d. per lb.	
Lox	3d. per lb.	Kempy ... ... 3d. per lb.	

During the current financial year 733 Merino rams were introduced from the Union by the Government for resale to African sheep farmers, making a total of 6,422 rams introduced since the inception of the sheep improvement scheme in 1935.

A census of small stock was taken during the year.

Cattle:

Despite adverse weather conditions seriously affecting the growth of cereals and pasture, the condition of the cattle was fairly well maintained. Large numbers of undesirable bulls were eliminated by:—

(a) castration by Officers of the Department;

(b) castration by owners themselves;

(c) sale by public auction to Union livestock dealers under the livestock sale scheme (the total number under this head was 334).

(d) exportation by traders and others for slaughter purposes in the Union.

The total number of bulls purchased by the Government for the cattle improvement scheme now totals 332, made up as follows:—

Breed.	Number.
Brown Swiss	10
South Devon	1
Afrikander Cross Sussex	6
Sussex	14
Jersey	1
Afrikander	300
Total	332

A census of cattle was taken during the year.

CATTLE IMPROVEMENT:

Owing to the sparsity of grazing and rigours of the winters in Basutoland, it was found that little improvement could be effected by crossing the Native cattle with bulls bred to better grazing. It was, therefore, decided to inaugurate a cattle improvement centre at Quthing, where seleced Native cows could be crossed with indigenous bulls of known ancestry, for the production of animals with the inherent qualities of stamina necessary to withstand the difficult conditions encountered in the Territory. So far 23 selected cows and a good bull have been purchased as a foundation More cows will be purchased as opportunity offers.

Buildings were erected during the year where the herd will be housed at night. Milk and other records will be carefully kept.

Equines:

A census of enqines was taken during the year. The emasculation on a voluntary basis of weedy undesirable stallions was continued. The total number of stallions and donkey "Jacks" purchased, since the equine improvement scheme was initiated in 1936, is 67 and 43 respectively. Three stud stables accommodating sixteen stallions have been established, viz.: one at Mafeteng, one at Maseru and one at Quthing. These stud stables are well patronised. The loan scheme has not been satisfactory excepting in the mountain regions where it has been a partial success only.

Pigs:

The scheme initiated two years ago at Maseru to breed pigs for issue at nominal prices to pig breeders is still making progress. Unfortunately the Basuto is not a pig-minded nation. Twenty-two boars and sows were sold during the year. The Tamworth-Large Black cross is favoured.

Poultry:

The poultry improvement scheme is making encouraging strides. Over 164 birds were distributed during the year. The favoured breeds are the Australasian Orpington, Rhode Island and Light Sussex.

6. MARKETING OF ANIMALS AND ANIMAL PRODUCTS:

Auction Sales Scheme:

During the year 3,321 head of cattle were sold under this scheme. This figure represents a decrease of 102 head of cattle over the previous year. Vide table appended:—

Report Year.	No. of Sales.	No. of cattle sold.	Total amount realized.	Average Prices.
			£ s. d.	£ s. d.
1938/39	10	257	1,560 14 7	6 1 $5\frac{1}{2}$
1939/40	11	784	5,042 17 6	6 6 $7\frac{3}{4}$
1940/41	18	2,303	14,740 19 6	6 8 $0\frac{1}{4}$
1941/42	18	2,539	20,701 6 6	8 3 $0\frac{1}{4}$
1942/43	25	5,370	52,844 19 6	9 16 9
1943/44	22	3,423	34,150 16 6	9 19 6
1944/45	19	3,321	35,516 4 0	10 13 $10\frac{3}{4}$
Total:	123	17,997	164,557 18 1	

During the last three years 1,303 slaughter sheep were sold for £2,142 13s. 0d. being an average price of £1 12s. $10\frac{3}{4}$d. During the same period 41 horses were sold for £384 17s. 6d. being an average price of £9 7s. 9d. It may be explained in this connection that 90 per cent. of these horses were condemned Government animals.

7. NEW LEGISLATION:

Proclamation No. 53 entitled the Basutoland Importation of Livestock (Amendment) Proclamation.

Proclamation No. 17 Basutoland Wool Packing, Marking, Marketing and Export (Amendment) Proclamation.

High Commissioner's Notice No. 172 relating to the Packing, Marking, Marketing and Export of Wool in or from Basutoland.

8. STATISTICS:

	Sheep.	Goats.	Cattle.	Horses.	Mules.	Donkeys.	Fowls.	Pigs.
Census	1,544,723	541,974	437,217	81,771	1,240	37,731		
Doses administered for worms	7,338,016	2,738,987	137	1,351	10	20	500	— 40
Castrations	18,927		2,484	942	20	160	250	10
Treated for internal parasites	12,147		16	726	—	—	600	—
Exports	1,107		7,554	331	—	14	—	17
Imports	21,471		11,727	1,649	42	1,905	—	19
Wool exported, lbs.	9,781,000	—	—	—	—	—	—	—
Mohair exported, lbs. ...		1,287,001	—	—	—	—	—	—
Bones exported, lbs. ...			1,050,500	—	—	—	—	—
Hides and skins exported		7,396	7,353	—	—	—	—	—
Inoculations: Anthrax ...	—	—	31,818	—	—	—	—	—
Quarter Evil	—	—	6,223	—	—	—	—	—
Anaplasmosis	—	—	700	—	—	—	—	—
Blue Tongue	3,358	—	—	—	—	—	—	—
Paratyphoid	—	—	45	—	—	—	—	—
Fowl Typhoid	—	—	—	—	—	—	7,130	—
Horse-sickness	—	—	—	729	—	—	—	—
Dosed for Fluke	156,100		—	—	—	—	—	—
Services by Government Sires	—	—	1,953	852	—	169	—	—

SECTION IV.

ANTI-EROSION WORK.

Eight tractor machinery units have been in operation throughout the greater part of the year in the lowlands, for the construction of graded terrace banks.

In the mountains, which are inaccessible to heavy machinery, the work of stabilising the soil takes the form of Buffer Grass Strips, from 6 feet to 9 feet wide, laid out at 6 feet vertical intervals on the contour through sloping arable land. Where there is a rush of surface water to be dealt with, descending on arable land from mountain slopes above, training banks have to be constructed immediately above the arable land to hold the rush of water and to carry the surplus away on grade. The construction of these training banks has, of necessity, largely to be carried out by hand labour, and is proving costly. In view of the high cost involved, amounting to £.86 per acre, arrangements are being made for the owners of arable land to construct banks according to specification, at a cost per 100 yards considerably lower than that at which these banks can be constructed by paid labour gangs.

Very satisfactory progress has been made with both lowland and mountain anti-erosion work; a record acreage being protected both in the lowlands and the mountains.

The progress made in the principal sections of the work is shown in the following schedule:—

Measure.	Prior to 1945.	During 1945.	Total to end 1945.
Area Terraced Acres ...	131,006.4	23,616.7	154,623.1
Length of Terrace yards ...	13,780,044	2,193,819	15,973,863
Buffer Grass Strips acres	41,829.9	38,635.8	80,465.7
Dams constructed	149	30	179
No. of trees planted	807,032	15,175	822,207

TERRACES.

The increased acreage protected during the year was partly the result of lightening the work on the more gently sloping land in the lowlands, and to the fact that it was possible to keep the tractors running most of the year, through spare parts having been made available by the Crown Agents for the Colonies. The figure of 23,616 acres, includes 1,629 acres protected by training banks in the mountain areas.

1,646,864 cubic yards of earth were moved in constructing the 2,193,819 yards of terraces during the year.

The average cost of all anti-erosion work carried out in the lowlands was 11.7/- per acre as compared with 14.2/- last year. This figure includes dams, spillways and tree planting; but excludes the purchase cost and depreciation of plant and equipment, the salaries and allowances of the Anti-Erosion Officer, the Agricultural and Livestock Officers and overhead Administration charges.

BUFFER GRASS STRIPS:

In some localities the ground on the southern slopes was frozen for two months, thus making the marking out of the strips impossible. This resulted in considerable movement of labour gangs, and consequent increase in the average cost of work per acre The cost per acre was 1.8/- as compared with 1.5/- last year.

DAMS:

The total capacity of the 30 dams constructed during the year is 25,550,190 gallons, which brings the total capacity of all dams to 302,363,190 gallons. These are all useful stock dams of from 250,000 to 3,000,000 gallon capacity, with the exception of 3 rather shallow vlei dams. Small silt-trap dams and gully banks are not included in the above figures. A greater number of these were made than in any previous year. One dam was constructed by the people themselves, according to specification, the labour being provided free of charge.

The mean cost per 1,000 gallons, of water impounded during the year, was 8d.

SPILLWAYS AND MEADOW STRIPS:

43 grass spillways were constructed at a cost of £171-16-9.

The meadow strips, used for the discharge of surplus water from terrace systems, have fulfilled their function admirably. Grazing on these meadow strips is permitted in the spring, when valuable grazing is provided for ploughing oxen.

It is most gratifying to record the very considerable increase in the output of work, both in the lowland and mountain areas. This has been achieved without any additions to the supervisory staff, and in spite of the difficult working conditions experienced due to drought.

SECTION V.

CONCLUSION.

1. FINANCIAL STATEMENT:

Revenue.	Expenditure.
£2,064.	£74,568-4-2.

Note:—Covering Financial Year ending 31st March, 1945.

2. VISITS:

A number of people from Africa and Europe, interested in anti-ersion work, visited the Territory during the year.

3. ACKNOWLEDGEMENT:

I desire once again to record the appreciation of my staff to all those officials and non-officials alike who have assisted and co-operated so freely in our continued e orts to press forward with our agricultural schemes.

I personally wish to express my thanks to the staff of this Department for their unilimited energy and support.

W. G. Leckie,
Director of Livestock and
Agricultural Services.

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